

(FILE 'HOME' ENTERED AT 13:04:38 ON 28 MAR 2001)

FILE 'CAPLUS' ENTERED AT 13:05:03 ON 28 MAR 2001

L1 50 S KAWAZURA?/IN
L2 267720 S ?RUBBER? OR ELASTOMER?
L3 267851 S L2 OR ?ELASTOMER?
L4 28 S L1 AND L3
L5 0 S 10009036/PN
L6 1 S DE10009036/PN

FILE 'DPCI' ENTERED AT 13:07:44 ON 28 MAR 2001

L7 1 S DE10009036/PN

FILE 'CAPLUS' ENTERED AT 13:08:00 ON 28 MAR 2001

L8 144511 S BLOCK
L9 21692 S L3 AND L8
L10 27085 S L2(3A)BLEND?
L11 1 S L9 AND L10\
L12 4975 S L9 AND L10
L13 16185 S INCOMPAT?
L14 57 S L12 AND L13
L15 140974 S ?ISOPRENE? OR ?BUTADIENE?
L16 40 S L14 AND L15

AN 2000:607355 CAPLUS
 DN 133:209130
 TI **Rubber** blends
 IN **Kawazura, Tetsuji**; Kawazoe, Masayuki; Nakamura, Masao
 PA Nippon Zeon Co., Japan; The Yokohama Rubber Co.
 SO Ger. Offen., 22 pp.
 CODEN: GWXXBX
 DT Patent
 LA German
 IC ICM C08L021-00
 ICS C08L053-02; B60C001-00
 CC 39-9 (Synthetic Elastomers and Natural Rubber)
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 10009036	A1	20000831	DE 2000-10009036	20000225
	JP 2000309664	A2	20001107	JP 2000-41396	20000215
PRAI	JP 1999-50710		19990226		
	JP 2000-41396		20000215		

AB The title blends, with good tensile strength, elongation, and abrasion resistance, contain incompatible blends of diene **rubbers** forming incompatible phases and 0.1-20 phr block polymer having .gtoreq.2 alternating, incompatible blocks, the mol. wts. of the polymers and blocks satisfying specified relationships. A blend of natural **rubber** 45, SBR 45, and polyisoprene-SBR block polymer (block mol. wt. 310,000 and 321,000, resp.) 10 parts had tensile strength 26.3 MPa, elongation 418%, and abrasion resistance index 120; vs. 23.2, 370, and 100, resp., for a 50:50 natural **rubber**-SBR blend.

ST blend **rubber** abrasion resistant; natural **rubber** blend; SBR blend abrasion resistant; isoprene block **rubber** blend; styrene block **rubber** blend; butadiene block **rubber** blend

IT Synthetic **rubber**, properties
 RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
 (block butadiene-isoprene-styrene; **rubber** blends)

IT Polymer blends
 RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
 (incompatible **rubber** blends)

IT Butadiene **rubber**, properties
 Natural **rubber**, properties
 Styrene-butadiene **rubber**, properties
 RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
 (**rubber** blends)

IT 9003-17-2
 RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
 (butadiene **rubber**, **rubber** blends)

IT 110389-01-0, Butadiene-isoprene-styrene block copolymer
 RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
 (**rubber**; **rubber** blends)

IT 9003-55-8
 RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
 (styrene-butadiene **rubber**, **rubber** blends)

L1 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2001 ACS
 AN 1996:624837 CAPLUS
 DN 125:250187
 TI Rubbers containing butadiene-(styrene)-isoprene block copolymers with improved wear resistance
 IN Kawamo, Tetsuji
 PA Yokohama Rubber Co Ltd, Japan
 SO Jpn. Kokai Tokkyo Koho, 9 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM C08L007-00
 ICS C08L009-00
 ICI C08L007-00, C08L053-02; C08L009-00, C08L053-02
 CC 39-13 (Synthetic Elastomers and Natural Rubber)
 FAN.CNT 6

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 08193146	A2	19960730	JP 1995-6565	19950119 <--
	US 5679744	A	19971021	US 1995-556014	19951109
PRAI	JP 1994-277795		19941111		
	JP 1995-6553		19950119		
	JP 1995-6565		19950119		
	JP 1995-6567		19950119		
	JP 1995-89577		19950414		
	JP 1995-114827		19950512		
AB	Title compns., useful for tire treads, comprise (a) natural and/or isoprene rubber, (b) butadiene (I)-styrene (II) rubber having II content (S) .gtoreq.50%, 1,2-vinyl bond content (Vn) .ltoreq.80 mol%, and Vn .ltoreq.(2S + 30), and (c) 2-20% block copolymers having 20-80% (A) I-II copolymer blocks with S 0-50%, I content 50-100%, Vn 5-70 mol%, and Vn .ltoreq.(2S + 30) or polybutadiene block and 20-80% (B) .gtoreq.70%-cis polyisoprene block. Thus, TTR 20 (natural rubber) 46.5, NS 114 (SBR) 46.5, I-II-isoprene block copolymer 7, carbon black 50, ZnO 3, S 2, and other additives 3 parts were mixed and press-vulcanized to give a test piece showing high viscoelasticity and good Lambourn abrasion resistance.				
ST	rubber blend block copolymer; natural rubber blend block copolymer; isoprene rubber blend block copolymer; tire tread rubber wear resistance; butadiene styrene rubber blend; wear resistance viscoelasticity rubber tire				
IT	Rubber, butadiene-styrene, properties Rubber, isoprene, properties Rubber, natural, properties RL: DEV (Device component use); POF (Polymer in formulation); PRP (Properties); USES (Uses) (rubbers contg. butadiene-isoprene-styrene block copolymer with improved wear resistance and viscoelasticity)				
IT	Tires (treads, rubbers contg. butadiene-isoprene-styrene block copolymer with improved wear resistance and viscoelasticity)				
IT	9003-31-0	9003-55-8			
	RL: DEV (Device component use); POF (Polymer in formulation); PRP (Properties); USES (Uses) (rubber, rubbers contg. butadiene-isoprene-styrene block copolymer with improved wear resistance and viscoelasticity)				
IT	110389-01-0, Butadiene-isoprene-styrene block copolymer RL: DEV (Device component use); POF (Polymer in formulation); PRP (Properties); USES (Uses) (rubbers contg. butadiene-isoprene-styrene block copolymer with improved wear resistance and viscoelasticity)				

L1 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2001 ACS
 AN 1996:598591 CAPLUS
 DN 125:224308
 TI Rubbers containing butadiene-styrene block copolymers with improved wear resistance and viscoelasticity

IN Kawamo, Tetsuji; Kawazoe, Masayuki
 PA Yokohama Rubber Co Ltd, Japan
 SO Jpn. Kokai Tokkyo Koho, 5 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM C08L007-00
 ICS C08L009-00
 ICI C08L007-00, C08L053-02
 CC 39-9 (Synthetic Elastomers and Natural Rubber)
 FAN.CNT 6

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 08193147	A2	19960730	JP 1995-6567	19950119 <--
	US 5679744	A	19971021	US 1995-556014	19951109
PRAI	JP 1994-277795		19941111		
	JP 1995-6553		19950119		
	JP 1995-6565		19950119		
	JP 1995-6567		19950119		
	JP 1995-89577		19950414		
	JP 1995-114827		19950512		
AB	Title compns., useful for tire treads, comprise (a) natural and/or isoprene rubber, (b) high-cis polybutadiene, and (c) 2-20% (based on total compns.) block copolymers of 20-80% (A) styrene (I)-butadiene (II) copolymer block having 0-35% I, 65-100% II, 1,2-vinyl (Vn) 5-80%, and Vn .ltoreq.(2St + 30) (St; I content) or polybutadiene (III) block and (B) I-II copolymer block having 0-30% I, 70-100% II, Vn >(2St + 30) or III. Thus, TTR 20 (natural rubber) 46.5, Nipol BR 1220 (high-cis butadiene rubber) 46.5, I-II block copolymer 7, carbon black 50, ZnO 3, S 2, and other additives 3 parts were mixed and press-vulcanized to give a test piece showing good gripping property and cold flexibility.				
ST	rubber blend block copolymer; natural rubber blend block copolymer; isoprene rubber blend block copolymer; styrene butadiene block copolymer rubber; high cis butadiene rubber blend; tire tread rubber blend block copolymer; wear resistance viscoelasticity rubber tire; gripping property tire rubber blend; cold flexibility rubber tire tread				
IT	Rubber, natural, properties RL: POF (Polymer in formulation); PRP (Properties); USES (Uses) (TTR 20; rubbers contg. butadiene-styrene block copolymers with improved wear resistance and viscoelasticity)				
IT	Abrasion-resistant materials (rubbers contg. butadiene-styrene block copolymers with improved wear resistance and viscoelasticity)				
IT	Rubber, isoprene, properties RL: POF (Polymer in formulation); PRP (Properties); USES (Uses) (rubbers contg. butadiene-styrene block copolymers with improved wear resistance and viscoelasticity)				
IT	Rubber, butadiene, properties RL: POF (Polymer in formulation); PRP (Properties); USES (Uses) (of cis-1,4-configuration, Nipol BR 1220; rubbers contg. butadiene-styrene block copolymers with improved wear resistance and viscoelasticity)				
IT	Tires (treads, rubbers contg. butadiene-styrene block copolymers with improved wear resistance and viscoelasticity)				
IT	9003-17-2 RL: POF (Polymer in formulation); PRP (Properties); USES (Uses) (rubber, of cis-1,4-configuration, Nipol BR 1220; rubbers contg. butadiene-styrene block copolymers with improved wear resistance and viscoelasticity)				
IT	9003-31-0 RL: POF (Polymer in formulation); PRP (Properties); USES (Uses) (rubber, rubbers contg. butadiene-styrene block copolymers with improved wear resistance and viscoelasticity)				
IT	106107-54-4, Butadiene-styrene block copolymer RL: MOA (Modifier or additive use); USES (Uses) (rubbers contg. butadiene-styrene block copolymers with improved wear				

resistance and viscoelasticity: /)

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L2 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2001 ACS

AN 1997:93314 CAPLUS

DN 126:105335

TI Rubber compositions for tire treads with improved wear resistance

IN Kawamo, Tetsuji

FA Yokohama Rubber Co Ltd, Japan

SO Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C08L009-00

ICS B60C001-00; C08L009-06; C08L053-02

CC 39-13 (Synthetic Elastomers and Natural Rubber)

FAN.CNT 6

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 08302071	A2	19961119	JP 1995-114827	19950512 <--
	US 5679744	A	19971021	US 1995-556014	19951109
PRAI	JP 1994-277795		19941111		
	JP 1995-6553		19950119		
	JP 1995-6565		19950119		
	JP 1995-6567		19950119		
	JP 1995-89577		19950414		
	JP 1995-114827		19950512		
AB	Title compns. contg. (i) 80-99 parts .gtoreq.2 incompatible diene rubbers A and B (wt. ratio of A/B = 10/90-90/10) and (ii) 1-20 parts A'-B' block copolymers, in which block A' is compatible with A and incompatible with B and block B' is compatible with A' and B', are manufd. by mixing the copolymers with B and .gtoreq.10 parts (based on 100 parts total amts. of rubbers and polymers) reinforcing fillers in advance. Thus, a mixt. of TTR 20 (natural rubber) 46.5, block copolymer (comprising 50/50 block A' having 21% styrene content and 13 mol.% 1,2-vinyl bond content and block B' having 15% styrene content and 70 mol.% 1,2-vinyl bond content) 7, and Seast KH 15 parts was blended with NS 116 (SBR) 46.5, Seast KH 35, zinc white 3, stearic acid 1, antioxidant 1, S 2, and vulcanization accelerator 1 part and press-vulcanized to give a test piece showing wet skid resistance 100, tan.delta. at 60.degree. 0.157, and wear resistance index 107.				
ST	tire tread rubber wear resistance; butadiene styrene block rubber tire; diene rubber tire tread				
IT	Synthetic rubber, uses				
	RL: MOA (Modifier or additive use); USES (Uses)				
	(block, rubber; rubber compns. for tire treads with improved wear resistance)				
IT	Isoprene rubber, properties				
	Natural rubber, properties				
	Styrene-butadiene rubber, properties				
	cis-1,4-Butadiene rubber				
	RL: DEV (Device component use); POF (Polymer in formulation); PRP (Properties); USES (Uses)				
	(rubber compns. for tire treads with improved wear resistance)				
IT	Polymer blends				
	RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)				
	(rubber compns. for tire treads with improved wear resistance)				
IT	9003-31-0				
	RL: DEV (Device component use); POF (Polymer in formulation); PRP (Properties); USES (Uses)				
	(isoprene rubber, rubber compns. for tire treads with improved wear resistance)				
IT	9003-55-8				
	RL: DEV (Device component use); POF (Polymer in formulation); PRP (Properties); USES (Uses)				
	(styrene-butadiene rubber, rubber compns. for tire treads with improved wear resistance)				
IT	9003-17-2				

RL: DEV (Device component use); POF (Polymer in formulation); PRP
(Properties); USES (Uses)

(cis-1,4-Butadiene rubber, rubber compns. for tire treads with improved
wear resistance)

L2 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2001 ACS

AN 1998:42435 CAPLUS

DN 128:89929

TI Block copolymers, rubber composition comprising the same, manufacture thereof, and tire rubber compositions and pneumatic tires using the same with improved wear and chipping resistance

IN Kawazura, Tetsuji; Kawazoe, Masayuki; Kikuchi, Yasushi; Nakamura, Toru; Nakamura, Masao; Karato, Takeshi

PA Yokohama Rubber Co., Ltd., Japan; Nippon Zeon Co., Ltd.; Kawazura, Tetsuji; Kawazoe, Masayuki; Kikuchi, Yasushi; Nakamura, Toru; Nakamura, Masao; Karato, Takeshi

SO PCT Int. Appl., 70 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

IC ICM C08F297-04

ICS C08L053-02; C08L009-06; C08K003-04; B60C001-00

CC 39-13 (Synthetic Elastomers and Natural Rubber)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9749743	A1	19971231	WO 1997-JP2170	19970624
	W: KR, US				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	JP 10007844	A2	19980113	JP 1996-166348	19960626
	JP 10036465	A2	19980210	JP 1996-207607	19960719 <--
	EP 919580	A1	19990602	EP 1997-927441	19970624
	R: DE, FR				
	JP 11029660	A2	19990202	JP 1997-191610	19970716
	US 6180717	B1	20010130	US 1999-147431	19990218
PRAI	JP 1996-166348	A	19960626		
	JP 1996-190677	A	19960719		
	JP 1996-207607	A	19960719		
	JP 1997-124383	A	19970514		
	WO 1997-JP2170	W	19970624		
AE	The title block copolymers (1) comprise a block of a conjugated diene polymer and a block of a random copolymer of a conjugated diene with an arom. vinyl compd., (2) have an A:B wt. ratio 5:95 to 95:5, (3) have a content of the bound arom. vinyl in the copolymer block B of 1-50%, (4) have Mw 100,000-5,000,000, and (5) have .gtoreq.2 DSC Tg at -150 to +50.degree.. A 30:70 styrene-butadiene rubber was prepd. with Mw 620,000 and Mw/Mn 1.24. A rubber compn. comprised the above block copolymer 10, SBR 45, isoprene rubber 45, carbon black 55, naphthenic oil 10, ZnO 3, stearic acid 2, Nocrac 6C 2, S 1.5, and Nocceler CZ 1.2 parts.				
ST	rubber compn block copolymer; tire rubber compn wear chipping resistant				
IT	Abrasion-resistant materials				
	Tires				
	(block copolymers, rubber compn. comprising the same, manuf. thereof, and tire rubber compns. and pneumatic tires using the same with improved wear and chipping resistance)				
IT	Natural rubber, properties				
	Styrene-butadiene rubber, properties				
	cis-1,4-Butadiene rubber				
	RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)				
	(block copolymers, rubber compn. comprising the same, manuf. thereof, and tire rubber compns. and pneumatic tires using the same with improved wear and chipping resistance)				
IT	106107-54-4P, Butadiene-styrene block copolymer		110389-01-0P,		
	Butadiene-isoprene-styrene block copolymer				
	RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)				
	(block copolymers, rubber compn. comprising the same, manuf. thereof, and tire rubber compns. and pneumatic tires using the same with improved wear and chipping resistance)				

IT 106107-54-4

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(styrene-butadiene rubber, block copolymers, rubber compn. comprising the same, manuf. thereof, and tire rubber compns. and pneumatic tires using the same with improved wear and chipping resistance)

IT 9003-17-2

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(cis-1,4-Butadiene rubber, block copolymers, rubber compn. comprising the same, manuf. thereof, and tire rubber compns. and pneumatic tires using the same with improved wear and chipping resistance)